

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P197004

Luminaire Tested: **NAV-AF-06-D-UNV-RW-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197004
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24161)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-06-D-UNV-RW-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(6) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24268 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B4 - U0 - G4

Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

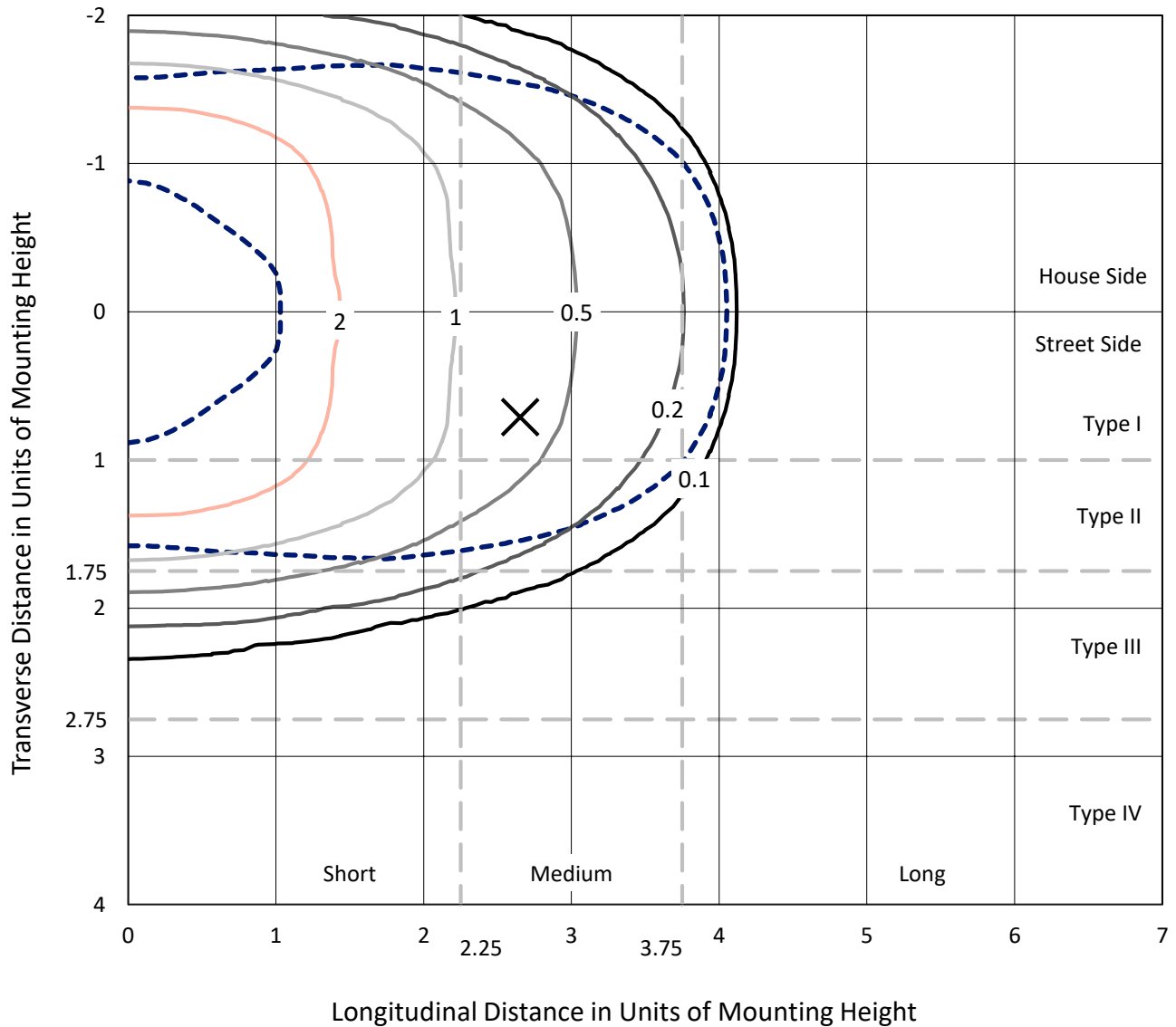


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Iso-Footcandle Lines of Horizontal Illumination

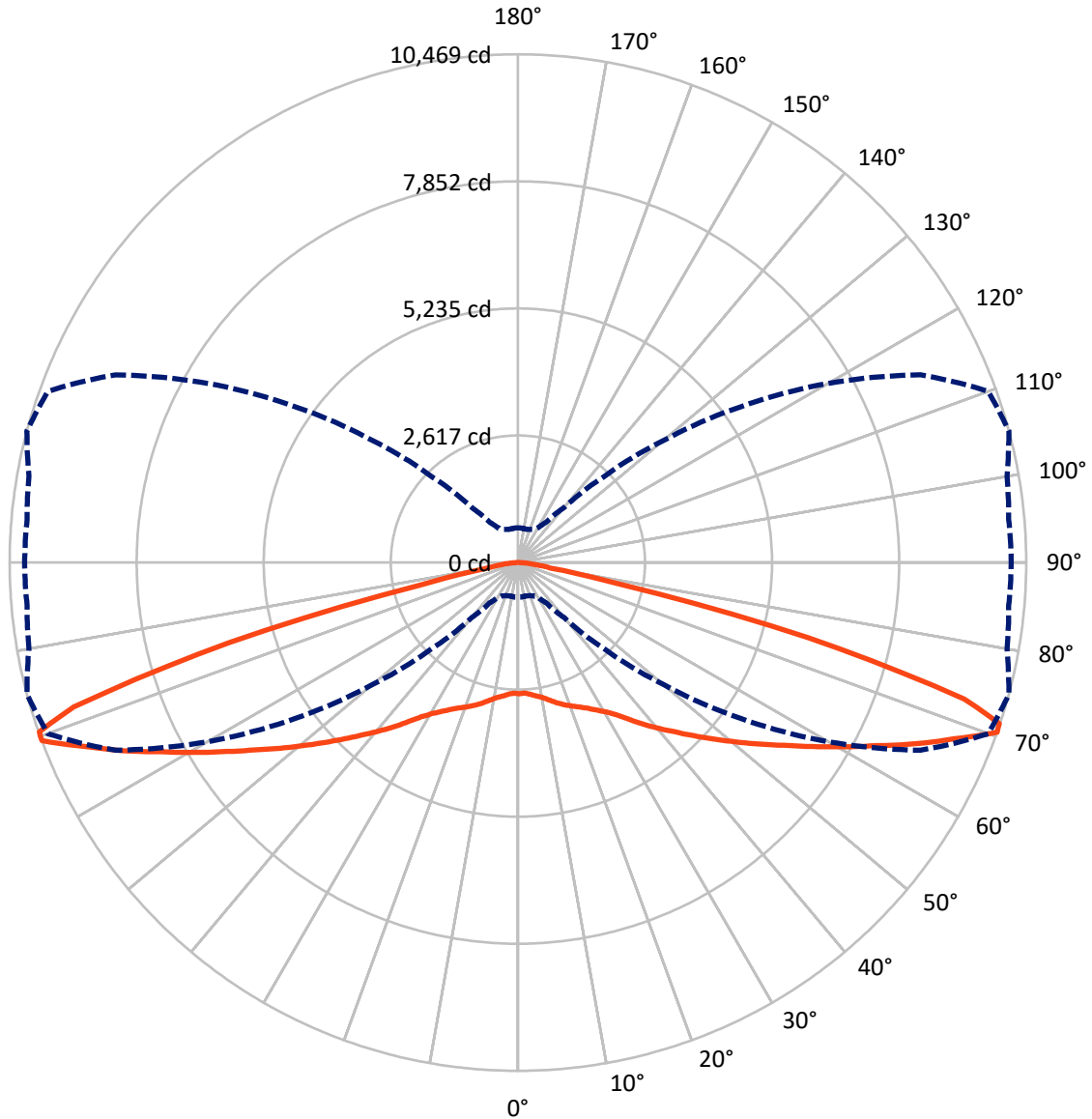
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12134.0	0.0	12134.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	12134.0	0.0	12134.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	24268.0	0.0	24268.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.2	1.1
10°-20°	803.9	3.3
20°-30°	1509.9	6.2
30°-40°	2659.7	11.0
40°-50°	4408.0	18.2
50°-60°	6132.2	25.3
60°-70°	5788.9	23.9
70°-80°	2472.5	10.2
80°-90°	233.6	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	24268.0	100.0
0°-180°	24268.0	100.0



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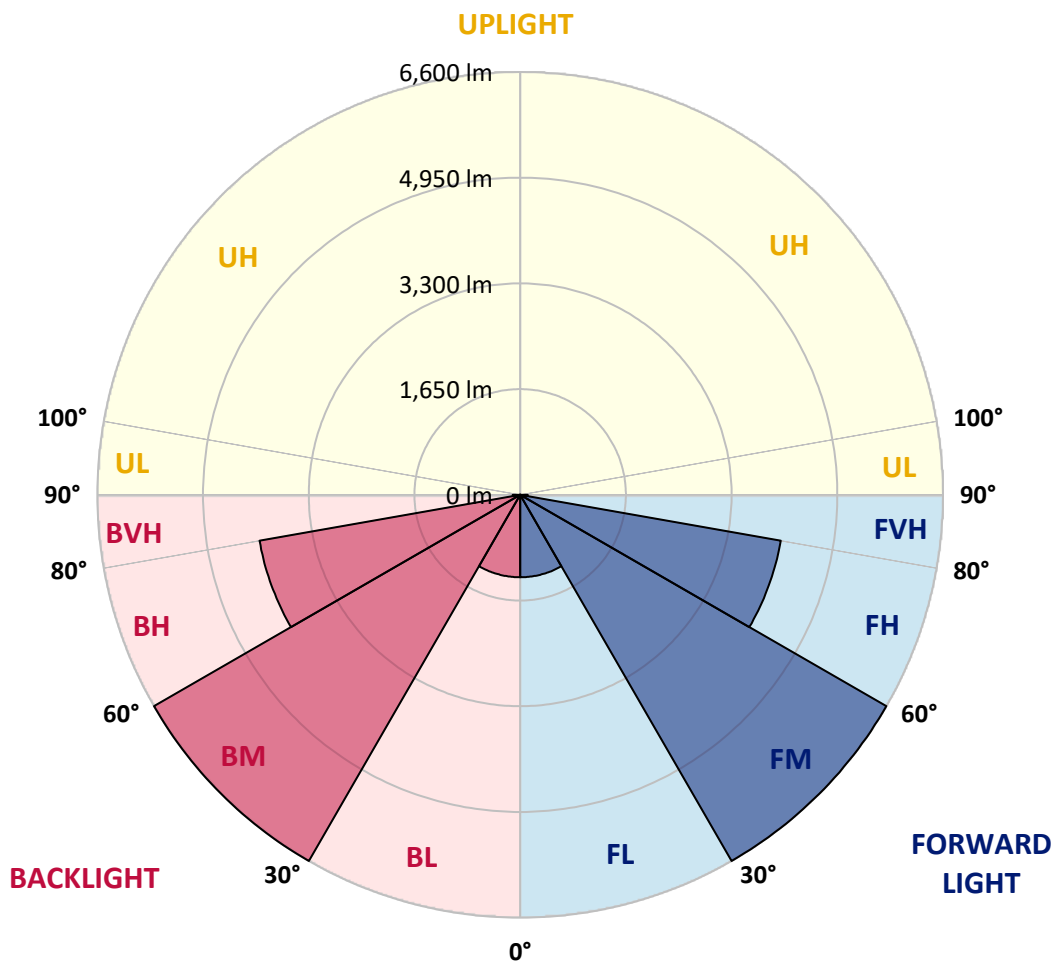
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1286.5	5.3			
FM	(30°-60°)	6600.0	27.2			
FH	(60°-80°)	4130.7	17.0			G2/5000
FVH	(80°-90°)	116.8	0.5			G2/225
BL	(0°-30°)	1286.5	5.3	B3/2500		
BM	(30°-60°)	6600.0	27.2	B4/8500		
BH	(60°-80°)	4130.7	17.0	B4/5000		G4/5000
BVH	(80°-90°)	116.8	0.5			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type II Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5
2.5°	2719.2	2717.7	2719.2	2714.6	2716.2	2714.6	2714.6	2708.6	2708.6	2705.5	2701.0
5°	2688.8	2691.8	2691.8	2691.8	2696.4	2696.4	2702.5	2704.0	2708.6	2713.1	2716.2
7.5°	2638.6	2640.1	2644.7	2647.7	2656.9	2669.0	2681.2	2694.9	2707.0	2722.2	2739.0
10°	2596.0	2599.1	2606.7	2614.3	2631.0	2646.2	2667.5	2688.8	2710.1	2735.9	2761.8
12.5°	2573.2	2577.8	2589.9	2602.1	2628.0	2647.7	2676.6	2710.1	2739.0	2763.3	2792.2
15°	2576.3	2577.8	2594.5	2611.2	2647.7	2675.1	2716.2	2755.7	2790.7	2818.1	2851.5
17.5°	2620.4	2623.4	2640.1	2664.5	2699.4	2734.4	2778.5	2819.6	2866.7	2898.7	2938.2
20°	2707.0	2711.6	2729.9	2755.7	2793.7	2830.2	2875.9	2918.4	2967.1	3005.1	3044.7
22.5°	2819.6	2827.2	2847.0	2878.9	2916.9	2961.0	3008.2	3052.3	3097.9	3135.9	3169.4
25°	2970.1	2979.3	3000.6	3032.5	3070.5	3117.7	3166.3	3211.9	3259.1	3288.0	3315.4
27.5°	3172.4	3187.6	3210.4	3236.3	3269.7	3319.9	3365.6	3403.6	3449.2	3481.1	3499.4
30°	3444.6	3465.9	3484.2	3511.5	3535.9	3589.1	3625.6	3656.0	3691.0	3709.3	3713.8
32.5°	3777.7	3797.5	3815.7	3835.5	3868.9	3917.6	3952.6	3969.3	3987.6	3984.5	3967.8
35°	4153.3	4168.5	4179.2	4214.2	4268.9	4300.8	4326.7	4332.8	4335.8	4303.9	4272.0
37.5°	4548.7	4567.0	4576.1	4630.9	4682.6	4719.1	4731.2	4744.9	4735.8	4682.6	4624.8
40°	4976.1	4995.9	5023.2	5070.4	5131.2	5166.2	5181.4	5179.9	5172.3	5109.9	5015.6
42.5°	5395.8	5420.2	5443.0	5525.1	5575.3	5634.6	5642.2	5640.7	5624.0	5552.5	5443.0
45°	5751.7	5780.6	5827.7	5919.0	5999.6	6071.1	6100.0	6110.6	6093.9	6017.8	5893.1
47.5°	6045.2	6065.0	6124.3	6235.3	6338.7	6443.7	6501.5	6542.5	6541.0	6486.3	6353.9
50°	6246.0	6268.8	6341.8	6466.5	6595.8	6718.9	6833.0	6925.8	6969.9	6930.3	6807.1
52.5°	6303.8	6332.7	6428.5	6577.5	6728.1	6893.8	7064.2	7228.4	7327.3	7351.6	7255.8
55°	6060.4	6092.4	6232.3	6439.1	6687.0	6931.8	7190.4	7424.6	7628.4	7722.7	7684.7
57.5°	5351.7	5374.5	5552.5	5820.1	6174.5	6604.9	7039.8	7468.7	7818.5	8063.3	8105.9
60°	4232.4	4261.3	4456.0	4738.8	5141.9	5686.3	6294.6	6997.2	7683.1	8244.3	8522.6
62.5°	2856.1	2875.9	3062.9	3321.4	3762.5	4287.2	4965.4	5855.1	6833.0	7835.2	8619.9
65°	1499.5	1499.5	1625.7	1806.7	2158.0	2628.0	3323.0	4235.5	5398.9	6650.5	7963.0
67.5°	869.9	868.4	897.3	938.3	1049.4	1239.5	1622.7	2293.4	3394.4	4851.4	6344.8
70°	717.8	713.3	708.7	708.7	725.4	754.3	827.3	1011.3	1479.7	2501.7	3903.9
71°	685.9	682.8	670.7	666.1	673.7	688.9	720.9	806.0	1050.9	1706.3	2915.4
72.5°	647.9	640.3	622.0	614.4	615.9	622.0	631.1	664.6	739.1	970.3	1662.2
75°	590.1	571.8	549.0	538.4	533.8	532.3	532.3	541.4	558.1	585.5	681.3
77.5°	523.2	497.3	473.0	462.3	454.7	450.2	447.1	441.0	438.0	450.2	485.1
80°	442.6	415.2	395.4	389.3	384.8	375.6	363.5	351.3	343.7	349.8	371.1
82.5°	342.2	314.8	317.8	319.4	311.8	296.6	284.4	270.7	257.0	254.0	264.6
85°	272.2	258.5	249.4	269.2	252.5	234.2	217.5	194.7	162.7	133.8	146.0
87.5°	117.1	118.6	170.3	257.0	225.1	181.0	150.6	121.7	77.6	57.8	59.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5	2702.5
2.5°	2699.4	2699.4	2694.9	2691.8	2691.8	2691.8	2688.8	2690.3
5°	2717.7	2720.7	2723.8	2722.2	2726.8	2731.4	2729.9	2728.3
7.5°	2748.1	2757.2	2766.4	2770.9	2777.0	2783.1	2784.6	2780.0
10°	2778.5	2796.8	2810.5	2822.6	2830.2	2836.3	2840.9	2839.4
12.5°	2816.5	2842.4	2866.7	2891.1	2907.8	2916.9	2926.0	2923.0
15°	2878.9	2907.8	2938.2	2970.1	2996.0	3009.7	3023.4	3020.3
17.5°	2964.1	2989.9	3014.2	3046.2	3078.1	3093.3	3108.5	3107.0
20°	3070.5	3090.3	3104.0	3122.2	3152.6	3169.4	3183.1	3178.5
22.5°	3192.2	3198.3	3199.8	3205.9	3230.2	3250.0	3268.2	3272.8
25°	3324.5	3319.9	3310.8	3306.2	3323.0	3344.3	3367.1	3373.2
27.5°	3488.7	3473.5	3450.7	3432.5	3437.0	3464.4	3490.3	3496.3
30°	3695.6	3660.6	3611.9	3576.9	3570.9	3599.8	3627.1	3636.3
32.5°	3931.3	3884.1	3817.2	3764.0	3741.2	3767.0	3791.4	3805.1
35°	4211.1	4159.4	4078.8	4010.4	3973.9	3990.6	4033.2	4048.4
37.5°	4542.7	4471.2	4381.5	4294.8	4233.9	4237.0	4282.6	4300.8
40°	4909.2	4805.8	4691.7	4583.7	4495.5	4489.4	4530.5	4544.2
42.5°	5290.9	5158.6	5024.8	4883.3	4773.8	4754.1	4807.3	4808.8
45°	5701.5	5531.2	5365.4	5201.2	5087.1	5052.1	5103.8	5109.9
47.5°	6139.5	5926.6	5730.4	5552.5	5429.3	5374.5	5424.7	5433.9
50°	6595.8	6375.2	6147.1	5949.4	5804.9	5738.0	5797.3	5803.4
52.5°	7047.4	6839.1	6612.5	6385.9	6211.0	6134.9	6204.9	6226.2
55°	7502.2	7301.4	7088.5	6861.9	6641.4	6574.5	6650.5	6673.3
57.5°	7975.1	7782.0	7588.8	7360.7	7146.3	7044.4	7126.5	7158.5
60°	8496.8	8326.4	8143.9	7914.3	7702.9	7584.3	7654.2	7690.7
62.5°	9009.3	8974.3	8808.5	8569.8	8302.1	8183.5	8242.8	8268.6
65°	9051.9	9619.1	9611.5	9374.3	9000.2	8800.9	8817.7	8829.8
67.5°	7900.6	9202.4	10034.3	10108.8	9692.1	9380.4	9343.9	9351.5
70°	5593.5	7380.5	9146.1	10305.0	10469.3	10227.4	10148.4	10160.5
71°	4481.8	6332.7	8276.2	9835.1	10457.1	10387.1	10343.0	10375.0
72.5°	2860.6	4665.8	6557.7	8422.2	9616.1	9958.3	10008.4	10028.2
75°	1038.7	2007.5	3397.5	4868.1	6169.9	7065.7	7558.4	7598.0
77.5°	558.1	719.3	1111.7	1660.7	2086.6	2314.7	2342.0	2352.7
80°	410.6	476.0	544.4	622.0	670.7	679.8	663.1	628.1
82.5°	290.5	328.5	355.9	383.2	403.0	386.3	320.9	244.9
85°	168.8	185.5	200.7	214.4	217.5	205.3	135.4	111.0
87.5°	66.9	73.0	71.5	80.6	77.6	71.5	53.2	45.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)